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The Carolina Sandhills Gardener

NCDA Soil Lab Update

An excerpt from David Hardy, Chief of Soil Testing for NCDA & CS in Raleigh, states that turnaround time for samples delivered today is estimated to be 5 weeks. If you sent samples in prior to the fee, he estimates for all results/reports associated to be released is the end of the first week of February. They are currently releasing reports for samples that were received around 11/22 and data entry is keying samples that arrived on November 29.

If you cannot find results or reports for samples submitted considering the above, call our extension office at (910) 862-4591 and we can assist you. Soil samples are currently \$4 a sample until April 1. Bladen County Cooperative Extension Center has soil boxes and forms that are available to you.

Contact Us

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Soil Sample Fees

Soil samples are currently **\$4 each until April 1**. NCDA & CS are taking routine soil samples now and estimates a turnaround time of 2 weeks.

Bladen County Announcements

For any meeting in this newsletter, persons with disabilities and persons with limited English proficiency may request accommodations to participate by contacting the Extension Office where the meeting will be held by phone, email, or in person at least 7 days prior to the event.

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Turfgrass: Weed and Feed Fertilizers

By: Jacob Barber, Consumer Horticulture Agent with N.C. Cooperative Extension in Bladen

Here in the sandhills, we are mostly in the coastal plain area of adaptation of turfgrasses in North Carolina. There is a range of different types of lawns our area has such as centipede, bermudagrass, zoysiagrass, St. Augustine grass and carpet grass. These are all grasses recommended to growing in the coastal plain of North Carolina. These grasses are quite different in many ways. However, there are many similarities when it comes to maintaining these lawns.

Establishment:

For warm season grasses like the ones listed above, establishment by seeding can be done from March to July. Aerification is recommended from April to July as well as renovation for warm season grasses. Some grasses might have a slight difference in timing for these strategies. Reference content.ces.ncsu.edu/Carolina-lawns for more details.

Fertilization:

Fertilization should be done once before planting (based off soil sample recommendations) and after planting. For seeded lawns, it is recommended that you fertilize 6-8 weeks after emergence. For vegetatively planted warm season grasses, fertilize throughout the 1st growing season to encourage full cover and faster spread. To help reduce turf loss, avoid fertilizing with high nitrogen on cool-season grasses in the late spring or summer and warm-season grasses in the fall or winter.

Integrated Pest Management:

Integrated Pest Management (IPM) strategies for weeds would include applying post-emergence herbicides in May if you are going to control summer annuals or perennial broadleaf's. However, it is recommended that you do not apply POST (post-emergence) herbicides until 3 weeks after green-up. Always remember to read the pesticide labels before applying.

Large patch is a common disease that may occur in your lawn. An NC State Turffiles Publication *Large Patch in Turf* states, "Large patch is favored by excessive nitrogen in the fall and spring, poor soil drainage, over-irrigation, excessive thatch accumulations, and low mowing heights." Cultural controls including using a grass that are resistant to this disease such as Bermudagrass. Be sure not to apply nitrogen to warm-season grasses in the fall and spring because this could result in a high risk of the disease occurring in your lawn. There is a broad spectrum of chemical control. Fungicides are available, but they must be applied as a preventative application. Depending on your lawn, there are a few different times and conditions required for application. Read more at: <https://www.turffiles.ncsu.edu/diseases-in-turf/large-patch-in-turf/> or call your local extension office for assistance.

White grubs are a common insect that emerge around this time. Be sure to make a note of where they are in the landscape and apply a preventative application the following spring or early summer. For more information on insect management in turf please visit <https://content.ces.ncsu.edu/insect-management-in-turf>.



Large Patch in Turf | NC Cooperative Extension Publication

Plant Spotlight: Golden Rod

By: Jacob Barber, Consumer Horticulture Agent with N.C. Cooperative Extension in Bladen

Golden Rod, *Solidago*, is a perennial wildflower that can be grown in different regions including mountains, piedmont and coastal plain. In addition, it is native to North Carolina. It is in the aster family which has up to 120 species and several cultivars. Golden Rod or Goldenrod is sometimes confused with ragweed. It is mistakenly accused of bearing the wind-borne pollen of ragweed that cause allergies and often hay fever. The detail that really gives the Golden Rod its name is the showy gold/yellow flower that bloom July through October with tiny club-shaped clusters.

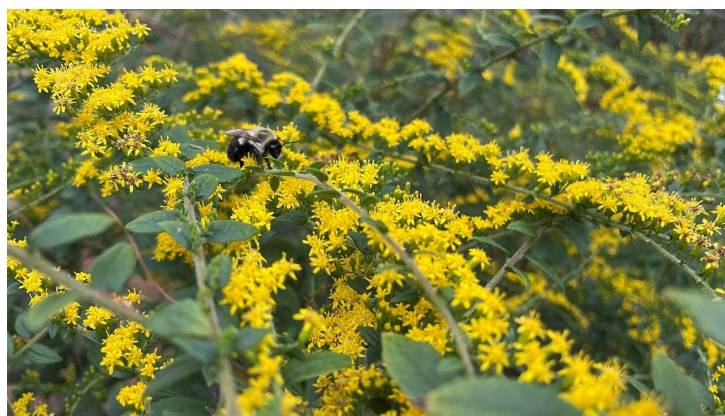
Golden Rod is a great choice for wildflower gardens, pollinator garden or even natural areas like a forest garden. Wherever you choose to place plant be sure that it receives full sun exposure along with well drained soils. It is a medium maintenance plant that has a certain tolerance to poor, dry soils, clay, and drought. This plant has no serious insect or disease problems; however, rust, powdery mildew, and leaf spot may occur.

If you would like to have additional blooming, it is encouraged to deadhead spent flower clusters. There is a lot of potential for this plant to naturally spread quickly throughout the area you place it. So, every two to three years it might be advantageous to divide it. You can do so by propagation. This can also occur naturally through wind-driven seeds. However, you can do this manually by dividing the underground rhizomes. With high moisture or warm weather, some of the species produce abundant nectar for attracting bees and other pollinators.



Golden Rod | NC Extension Gardener Plant Toolbox

For more information, you can visit: <https://plants.ces.ncsu.edu/plants/solidago/>



Golden Rod in the Landscape and attracts pollinators | NC Extension Gardener Plant Toolbox

Edible Corner: Blueberries in the Landscape

By: Mack Johnson, Extension Horticulture Agent with N.C. Cooperative Extension in Robeson County

The edible landscape is a relatively new name for a practice my grandparents employed. It's also a practice we can enjoy in our own landscapes today. In recent years, most home landscapes have focused more on appeal and aesthetics. Healthier lifestyles and local foods are two emerging trends in our culture, encouraging placing more practical plants in our lawns and gardens. Edible landscaping is placing plants in your home landscape that can be used to provide food in place of plants serving an ornamental purpose only.

Plant a blueberry bush for a dual-purpose plant. Blueberries are extremely healthy for you. They do require more acidic soil than most plants. Be mindful of this if you select them for your garden. Different varieties provide a longer season to enjoy the fruit.

Blueberries can be easily grown in home gardens anywhere in North Carolina if the right species and proper soil modifications are used. Blueberries are typically used in the landscape as hedges for screening purposes, but they can also be used in cluster plantings or as single specimen plants. Blueberries are an ideal year-round addition to the landscape. They have delicate white or pink flowers in the spring, the summer fruit has an attractive sky-blue color, and the fall foliage adds great red and yellow colors to the landscape. In addition, blueberry plants lend themselves to the "organic" approach of gardening, since pesticides are rarely needed in home garden plantings.

If you plant without an initial soil test, mix 1 cubic foot of peat moss with an equal amount of sand. On a heavy clay soil or a soil that sometimes remains wet, put the peat-sand mixture on the soil surface. If you are certain the soil has good internal drainage, part of the peat-sand mixture can go in a hole or furrow several inches below the soil surface. However, leave enough of the peat-sand mixture to form a mound (single plant) or ridge (row of plants) at least 6 inches above the surrounding soil surface. The mound or ridge will insure against damage from excess water. However, with this planting method, water thoroughly 2 to 3 times per week during dry periods, because the raised peat-sand mix will dry out quickly.

Blueberry plants require excellent soil drainage, so provisions for drainage must precede planting. Soil maps or observing the soil profile may be helpful in predicting internal drainage. Alternatively, digging a "dry well" can be a very effective means of determining soil drainage. Dig a hole(s) 6 to 8 inches deep, and observe the water level following heavy rains. Water should not remain in the hole for more than 24 hours, otherwise select another site or plant on ridges high.

Full sun is desirable, but up to 50 percent shade is usually acceptable. However, yield is reduced with increasing shade, so plant in a sunny location to achieve maximum yield.

The rabbiteye is more drought and heat resistant and will tolerate a wider range of soil types. For these reasons, rabbiteye is easier to establish and grow successfully in the Piedmont and on the drier soils of the Coastal Plain. Be sure to plant more than one rabbiteye variety for better pollination and yield.

Planting late winter (February - March) as soon as the soil can be worked is best for bare-root plants. Fall (November - December) planting has been successful on sandy soil in the southeastern Coastal Plain with bareroot plants and in the other areas with potted plants. Prune approximately 2/3 of the top growth on bare-root plants and 1/2 on potted plants, leaving only 1-3 of the most vigorous upright shoots. Remove any remaining flower buds (plump, rounded buds) so the plants will not flower the first year. Do not fertilize immediately after planting. Wait until the first leaves have reached full size, then apply 1 tablespoon of a special azalea fertilizer (12-12-12 or 10-10-10) within a circle 1 foot from the plants. Repeat the application of fertilizer at 6-week intervals, depending upon rainfall or irrigation, until mid-August in the Coastal Plain. Enjoy your new edible landscape in a couple of years.

Adapted from NCSU publication "Growing Blueberries in the Home Garden"

Seasonal Tips and Tasks

By: Mack Johnson, Extension Horticulture Agent with N.C. Cooperative Extension in Robeson County

Soil Tests will be free April 1

Soil health is paramount if you want to garden successfully. Plant health depends on the soil's acidity, available nutrients, organic matter, drainage, and aeration. This simple submission provides the customer this pertinent information. Not only will you receive fertilizer recommendations for the specific crop, you will know the soil's pH, and several micronutrient levels present in the sample. Your county Cooperative Extension center can provide you with forms and soil test boxes, along with instructions on the proper way to collect a representative soil sample and, most importantly, help you interpret the report.

It's not too late to start some of your favorite garden seeds indoors for spring planting. Look for open pollenated varieties if you plan to save its seed for next year. Prepare to provide extra cover to any tender warm-season transplant planted outdoors prior to April 15, since this is our expected last frost date according to the United States Department of Agriculture (USDA).

Save your money! Do not apply weed and feed to your centipede lawns at this time, although many do! Centipede is one of the most common turfs in the Sandhill region. Centipede doesn't benefit from fertilization until late May and possibly again in August. Visit www.turffiles.ncsu.edu for more information on lawn care and online maintenance calendars for several of our turf grasses, including centipede.

This is a great time to replenish your ornamental bed mulches. Three inches is the recommended depth to establish weed control. A proper layer of mulch protects the plants from mechanical damage to its trunk, prevents weeds, and provides a layer of insulation to temper the root zones soil temperature against North Carolina seasonal temperature extremes. A good layer of mulch also helps to conserve soil moisture, another great

Understanding a Home and Garden Soil Sample Report | North Carolina Department of Agriculture

Understanding the Soil Report		Report Abbreviations																							
<p><u>Lime</u> Application of lime at the recommended rate will raise soil pH to the optimum range. Do not apply too much lime. When soil pH becomes too high, lowering it is very difficult. Often, the best solution then is to choose plants that can tolerate a high pH. Choosing dolomitic lime can be advantageous because it contains the nutrients calcium and magnesium. Pelleted lime is easier to spread uniformly than powdered lime.</p> <p>Lime can be applied at any time of year, but because it reacts slowly, it is best to apply it several months before a new planting. Mixing it into the soil will speed the reaction time. Lime applied to the soil surface takes much longer to correct soil pH.</p> <p>A surface application should not exceed 60 lb per 1,000 sq ft. If a soil report recommends more than this, apply 60 lb per 1,000 sq ft initially and the rest in similar increments every 6-9 months until the full rate is applied.</p> <p><u>Fertilizer</u> Soil tests do not measure nitrogen (N) since it is very unstable in soils; the N recommendations provided on the soil report are based on plant needs. If soil-test P-I and K-I values are adequate (>50), only nitrogen is recommended- Group D below. A mixed (N-P-K) fertilizer is recommended if P-I and K-I values are less than optimum- Groups A - C below. Although a specific fertilizer grade may be recommended (e.g., 5-10-10), other equivalent options are likely to be available (e.g., any fertilizer in Group A from Table 1).</p> <p><u>Tips on Fertilizer Application</u></p> <ul style="list-style-type: none"> • To determine how much fertilizer to buy, estimate (in feet) the length (L) and width (W) of the area to be treated: L x W = sq ft. Square off curves to make estimates easier. If the recommendation is 20 lb per 1,000 sq ft and your area is 5,000 sq ft, then you need 100 lb (20 x 5) for your 5,000-sq-ft area. • Calibrate your spreader according to manufacturer settings. Apply half the total rate in one direction; apply the rest at a 90° angle. This cross-hair pattern provides a more uniform application. • After application, sweep up any fertilizer on hard surfaces and apply to fertilized areas so rainfall does not carry fertilizer to a storm drain. <p>Table 1. Groups of equivalent fertilizers that supply 1 lb of N per 1,000 sq ft *</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="text-align: left;">Group A: low P-I + low K-I</th> <th style="text-align: left;">Group B: high P-I + low K-I</th> <th style="text-align: left;">Group C: low P-I + high K-I</th> <th style="text-align: left;">Group D: N only</th> </tr> </thead> <tbody> <tr> <td>5-10-10 @ 20 lb</td> <td>5-10-5 @ 20 lb</td> <td>8-0-24 @ 12 lb</td> <td>15-0-0 @ 7 lb</td> </tr> <tr> <td>3-9-9 @ 30 lb</td> <td>18-46-0 @ 6 lb</td> <td>15-0-14 @ 7 lb</td> <td>21-0-0 @ 5 lb</td> </tr> <tr> <td>10-10-10 @ 10 lb</td> <td>18-24-10 @ 6 lb</td> <td>6-6-18 @ 18 lb</td> <td>16-0-0 @ 6 lb</td> </tr> <tr> <td>11-15-11 @ 10 lb</td> <td>9-13-7 @ 11 lb</td> <td>5-5-15 @ 20 lb</td> <td>28-0-4 @ 4 lb</td> </tr> <tr> <td>8-10-8 @ 12 lb</td> <td>9-17-8 @ 11 lb</td> <td>10-0-14 @ 10 lb</td> <td>12-6-6 @ 8 lb</td> </tr> </tbody> </table> <p>* Since these rates supply 1 lb N per 1,000 sq ft, use half the rate if centipede is the grass type.</p>	Group A: low P-I + low K-I	Group B: high P-I + low K-I	Group C: low P-I + high K-I	Group D: N only	5-10-10 @ 20 lb	5-10-5 @ 20 lb	8-0-24 @ 12 lb	15-0-0 @ 7 lb	3-9-9 @ 30 lb	18-46-0 @ 6 lb	15-0-14 @ 7 lb	21-0-0 @ 5 lb	10-10-10 @ 10 lb	18-24-10 @ 6 lb	6-6-18 @ 18 lb	16-0-0 @ 6 lb	11-15-11 @ 10 lb	9-13-7 @ 11 lb	5-5-15 @ 20 lb	28-0-4 @ 4 lb	8-10-8 @ 12 lb	9-17-8 @ 11 lb	10-0-14 @ 10 lb	12-6-6 @ 8 lb	<p>Time Fertilizer Application to Coincide with Plant Growth Cycle: Bermudagrass: May, July, Sept Centipedegrass: May St. Augustine grass: May, August Tall fescue: Sept, Nov, Feb Zoysia: May, July Flowers/shrubs: prior to planting or during the growing season Vegetables: prior to planting</p> <p>Helpful Links</p> <p>A Homeowner's Guide to Fertilizer Note 4: Fertilization of Lawns, Gardens & Ornamentals Caring for Your Lawn & Environment Carolina Lawns Soil Acidity and Liming: Basic Information for Farmers & Gardeners</p>
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Pest Alert: Scale insects

By: Robby Brockman, Horticulture Extension Area Agent with N.C. Cooperative Extension in Hoke and Scotland County

While they have many colors, shapes, and sizes, insects can be identified through a few anatomical features such as having three pairs of legs, three main body segments, and a hard exoskeleton. This is why it can be so hard to recognize insect pests such as scale. Scales have waxy covers that greatly distort their appearance and often make them look like bumps on the surface of a leaf or stem. Unlike other inconspicuous insects such as gall or spittle forming insects, scales tend to be very small and can be difficult to identify with the naked eye.



Winged adult crapemyrtle bark scale, nymphs, and male pupae

Scales are related to phloem sucking insects such as aphids, adelgids, and mealybugs and have a similar lifecycle. Immature scales are nymphs often called crawlers and are very mobile. Adult scales tend to be less mobile and some species such as armored scales are completely immobile as adults. Mobile scales can often be found on leaves during the growing season while immobile scales stay on stems and evergreen leaves. They use their needle like mouthparts to suck sap out of their host plants. Like some other members of this phloem feeding group, many scale species secrete excess nutrients and waste as honeydew.

While honeydew is usually associated with aphids, many scale species also produce copious amounts of this sweet and sticky liquid. Honeydew often attracts many other insects such as bees, wasps, and most famously, ants, which are well known for “farming” aphids. Honeydew initially has a glossy look, similar to honey on leaves! This glossy look is later replaced by a black color when honeydew is colonized by sooty mold fungi. Sooty molds are not parasites of plants but can cause additional damage to the health of your plants by blocking sunlight and photosynthesis. Scale insects may have great camouflage with their waxy coatings, but they can often be located by looking for honeydew, sooty mold, or the many insects feeding on honeydew.

Understanding which species of scale you have, and knowing that scale’s life cycle, is essential when trying to eliminate problematic scale populations. Due to their small size and oftentimes similar appearance, scales can be difficult to distinguish from one another. Fortunately, scales are very selective in the plant species they feed on and can often be identified by host plant. A few common species in our area include Tea Scale on species of *Camellia*, Cottony Maple Scale primarily on maple and dogwood, Cottony Cushion Scale on species of *Nandina* and *Pittosporum*, and *Euonymus* Scale on species of *Euonymus*, *Pachysandra*, and *Celastrus*.



Tea Scale injury of camellia. John C. French Sr., Retired, Universities: Auburn, GA, Clemson and U of MO, Bugwood.org

Scale management is complicated by the waxy outer coverings they produce. Similar to bagworms and web forming insects, these coatings are effective at keeping contact insecticides from touching and killing scales. Systemic insecticides can control scales but shouldn’t be used on blooming plants or plants that will be blooming in the near future. Scales can be smothered by applying horticultural oils. However, if you’re reading the insecticide label, you’ll learn that most horticultural oils should be applied during the winter or times of cool weather to prevent damage to the plant. If you can time your insecticide applications properly, it is possible to control scales during their nymphal stage when they aren’t protected by a waxy coating.

Sustainability Feature: Lowering Energy Usage with Trees

By: Robby Brockman, Horticulture Extension Area Agent with N.C. Cooperative Extension in Hoke and Scotland County

Does your house never seem to stay warm during the winter? Over the course of the summer, does it seem like your air conditioning unit is constantly running? While our house's heating and cooling systems continue chugging along, winter winds zap the heat out of our houses before being replaced by intense summer sunshine that raises our house's temperature at exactly the time that we want the temperature lower.

Our home landscape can have a huge impact on how well our houses maintain their internal, and our ideal, temperature. While outside temperatures fluctuate greatly, our landscape has the ability to consistently make our utility bills much lower. The US Department of Energy estimates that trees can help lower home energy bills by an average of 25%. Trees are an integral part of our landscape and make it both more beautiful and useable. Instead of needing to set up an umbrella to keep the summer sun off of you, it is often more enjoyable to relax in the shade of a large shade tree which not only keeps the sun off you, but cools the entire area through a process called evapotranspiration.

It may seem counterintuitive to think that trees can consistently help our houses maintain our ideal temperature. You may think, if trees are lowering temperature in the summer, shouldn't they also lower temperature in the winter? Getting trees to work for us can take some initial planning that will pay off for decades! Tree species and tree placement is very important when using trees to alter our home environment.

The primary way that trees can help us during the summer is by shading our house or outdoor area. When picking trees to shade our house, we want to make sure those trees are deciduous and lose their leaves during the winter. Large shade trees should be placed to the east and west of your house to maximize their usefulness. When deciding which shade trees to plant, you must consider a number of things including the mature size, growth rate, and if the tree has strong structure. A few trees native to North Carolina that work very well as shade trees include red maple, black gum, bald cypress, and willow oak.

Trees can also help our houses maintain their temperature during the winter by blocking winds that wick heat away. When planting these trees, we must carefully place them so that they intercept winds but do not shade our house. To deflect winter winds, windbreaks made of trees and shrubs should be planted to the north and north-west of the house. While deciduous trees intercept some wind during the winter, the most effective winter windbreaks feature trees and bushes that are evergreen. A few native trees and shrubs that work well in the sandhills include southern magnolia, American holly, sweet bay magnolia, columnar eastern redcedar, and southern wax myrtle.

In addition to the benefits you see to your home energy bill, trees are a valuable addition to your property! They can improve your property values, slow water movement, provide habitat for wildlife, and much more.

